



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

SD

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/912,931	07/25/2001	Robert H. Thibadeau	010321	7248
7590	02/17/2005		EXAMINER	
Judson K. Champlin WESTMAN, CHAMPLIN & KELLY, P.A. International Centre - Suite 1600 900 Second Avenue South Minneapolis, MN 55402			PARTHASARATHY, PRAMILA	
			ART UNIT	PAPER NUMBER
			2136	
DATE MAILED: 02/17/2005				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	09/912,931	THIBADEAU, ROBERT H.
	<b>Examiner</b>	<b>Art Unit</b>
	Pramila Parthasarathy	2136

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 13 December 2004.
- 2a) This action is FINAL.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 1-145 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-145 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
  1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                    | Paper No(s)/Mail Date. _____.   |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____. | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
|   | 6) <input type="checkbox"/> Other: _____.                                   |

***DETAILED ACTION***

1. This action is in response to request for reconsideration filed on November 18, 2004. No Claims were cancelled. Repeating Claim 128 was amended as Claim 137. New Claims 139 – 145 were added. Therefore, presently pending claims are 1 – 145.

***Response to Arguments***

2. Applicant's arguments filed on November 18, 2004, have been fully considered but they are not persuasive for the following reasons:

Applicant argued that the cited prior art (CPA) [Diamant et al. U.S. Patent number 6,268,789 hereinafter "Diamant"] does not teach, suggest or disclose, "a secure data partition for storing secure data and one or more authority records", "restricting access to the secure data partition such that only the firmware may access the secure data and the one or more authority records" and "limiting access to the security partition [or a portion of the storage device] of said storage device by said operating system of said computer system".

Regarding Claims 1, 35, 56, 89, 123 and 132, Diamant teaches and describes a device for protecting secured partition of the storage device in a computer system. A

managing controller (a device that controls the transfer of data from a computer (OS) to a peripheral (storage) device which are often a single chips (ROMs, PROMs and EPROMs)) along with a CPU (processor) is operative to enable or deny the access to the storage device. The method is described with several detailed illustrative (different) embodiments (Fig.1, 6, 7, 11 and Column 5 line 5 – Column 15 line 22), including the steps of “partitioning a storage medium” into public and secure storage area and the partition being accessible to a user and the secure partition being invisible to the user (Column 5 line 25 – Column 6 line 35), “the secure partition for storing secure data and one or more authority records” (Column 8 line 26 – Column 9 line 31, Column 10 lines 18 – 53, Column 18 lines 5 – 12 and Column 21 lines 1 – 12), wherein the secured area contains data and confidential information; “restricting access to the secure data partition such that only the firmware may access the secure data and the one or more authority records (confidential information or data)” (Column 8 line 62 – Column 9 line 31, Column 10 line 47 – Column 11 line 20, Column 12 line 1 - Column 13 line 53, Column 21 lines 1 – 12), wherein the managing controller determines enabling access to the secured devices, and “limiting access to the security partition of said device by said operating system of said computer system” (Column 2 lines 47 – 53, Column 8 line 62 – Column 9 line 31, Column 10 line 47 – Column 11 line 20, Column 12 line 1 - Column 13 line 53 and Column 21 lines 1 – 12), wherein the managing controller determines enabling access to the secured devices including access to operating system.

Applicant argued that the cited prior arts (CPA) [Diamant et al. U.S. Patent number 6,268,789 hereinafter “Diamant” and Acusmith et al. U.S. Patent Number 5,940,513, hereinafter “Acusmith”] do not teach, suggest or disclose, “authority records” or “limiting access by the operating system” and can not be combined with Aucsmith’s ““permanent key storage” with “symmetric key and public-private (asymmetric) key”.

Regarding Claims 16 – 19, 25 – 27, 30, 31, 43-45, 50-52, 71-74, 79-81, 84, 85, 104-107, 113-115, 118, 119 and 129, for the limitations “authority records” and “limiting access by the operating system”, please refer to the above arguments.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Diamant discloses a device for protecting secured partition of the storage device in a computer system wherein a security key (symmetric key or private key) is generated and saved (permanently storing) in the storage unit and that classified data is encrypted to be saved along with encryption-decryption key (Diamant Column 5 lines 17 – 24, Column 10 lines 61 – 66 and Column 15 lines 1 – 7). Acusmith discloses a method for access

control with an encryption unit to provide encryption algorithms wherein the keys can be symmetric-keys or public asymmetric-keys (Acusmith Column 5 lines 10 – 20).

Motivation to combine the invention of Diamant et al. with Acusmith et al. comes from the need for authenticating the data from security partition and Diamant discloses having a (generated) secret key and Acusmith discloses that the keys can be symmetric or public-private (asymmetric) keys. It would have been obvious to a person of ordinary skill in the art to implement symmetric and public-private keys depend on the extent of security required by the system, where with symmetric keys the key should remain secret in order for the communication need to remain secret and with public-private key pair, the private (secret) key is needed to decrypt the message that was encrypted using the public key (of the public-private key pair).

In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Claim 137 is rejected as applied above in rejecting claim 1. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Diamant Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein the secure data is accessed by the firmware using a security partition open call internal to the storage device and hidden from a user (Diamant Column 17 line 43 – Column 18 line 18).

Claim 138 is rejected as applied above in rejecting claim 89. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Diamant Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein the means for partitioning comprises a computer readable medium containing instructions for partitioning the storage device (Diamant Column 5 lines 35 – 45).

Claim 139 is rejected as applied above in rejecting claim 89. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein the means for limiting access to the security partition comprises the processor within the storage device, the processor adapted to limit access to the security partition according to the at least one authority record (Diamant Column 2 lines 47 – 53, Column 8 line 62 – Column 9 line 31, Column 10 line 47 – Column 11 line 20, Column 12 line 1 - Column 13 line 53 and Column 21 lines 1 – 12),

Diamant teaches that the managing controller along with processor determines enabling access to the secured devices.

Regarding Claim 141, Diamant teaches and describes a storage device (Fig. 1-8, 11, 14 and Column 5 line 25 – Column 15 line 22), comprising:

a storage medium having a security partition containing one or more authority records and at least one data set associated with each of the one or more authority records (Fig. 2,5,8,11,14 and Column 5 line 25 – Column 6 line 60, Column 8 line 26 – Column 9 line 31, Column 10 lines 18 – 53, Column 18 lines 5 – 12 and Column 21 lines 1 – 12), wherein the secured area contains data and confidential information; and a mechanism within the storage device adapted to limit access to the security partition based on the one or more authority records (Column 2 lines 47 – 53, Column 8 line 62 – Column 9 line 31, Column 10 line 47 – Column 11 line 20, Column 12 line 1 – Column 13 line 53 and Column 21 lines 1 – 12), wherein the managing controller determines enabling access to the secured devices including access to operating system.

Claim 142 is rejected as applied above in rejecting claim 141. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein the mechanism comprises:

a processor disposed within the storage device adapted to limit access to the security partition by an operating system of a computer system (Column 2 lines 47 – 53, Column 8 line 62 – Column 9 line 31, Column 10 line 47 – Column 11 line 20, Column 12 line 1 - Column 13 line 53 and Column 21 lines 1 – 12), wherein the processor limits the access to the secured devices including access to operating system.

Claim 143 is rejected as applied above in rejecting claim 141. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein the mechanism comprises:

firmware disposed within the storage device adapted to limit access to the security partition by an operating system to the security partition by an operating system of a computer system (Column 2 lines 47 – 53, Column 8 line 62 – Column 9 line 31, Column 10 line 47 – Column 11 line 20, Column 12 line 1 - Column 13 line 53 and Column 21 lines 1 – 12), wherein the managing controller (firmware) determines enabling access to the secured devices including access to operating system.

Claim 144 is rejected as applied above in rejecting claim 141. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein the one or

more authority records comprises a master authority record including instructions for governing the one or more authority records in said storage device (Column 8 line 26 – Column 9 line 31, Column 10 lines 18 – 53, Column 18 lines 5 – 12 and Column 21 lines 1 – 12), wherein the secured area contains data and confidential information;

Claim 145 is rejected as applied above in rejecting claim 141. Furthermore, Diamant teaches and describes a storage device for promoting security in a computer system (Fig. 1- 8, 11, 14 and Column 5 line 25 – Column 15 line 22), wherein each of the one or more authority records comprises a plurality of fields, wherein a first field of the plurality of fields contains access rights governing access to at least one data set (Column 8 line 26 – Column 9 line 31, Column 10 lines 18 – 53, Column 18 lines 5 – 12 and Column 21 lines 1 – 12), wherein the secured area contains data and confidential information. Diamant also discloses that the password stored in the storage area and that predetermined password will be used to provide access to the device.

Applicant clearly has failed to explicitly identify specific claim limitations, which would define a patentable distinction over prior arts. Therefore, the examiner respectfully asserts that CPA does teach or suggest the subject matter broadly recited in independent claims 1, 35, 56, 89, 123, 132 and independent new claim 141. Dependent claims 1-34, 36-55, 57-88, 124-131, 133-140 and 142-145 are also rejected at least by virtue of their dependency on independent claims and by other reason set

forth in this and previous (8/5/2004) office action. Accordingly, the rejection for the pending Claims 1 – 145 is respectfully maintained.

For reasons to rejecting Claims 1 – 136, please refer the previous office action (8/5/2004).

***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO Form 892.
5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

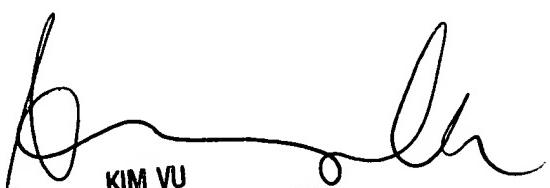
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Pramila Parthasarathy whose telephone number is 571-272-3866. The examiner can normally be reached on 8:00a.m. To 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-232-3795.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR only. For more information about the PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Pramila Parthasarathy  
February 09, 2005.



KIM VU  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100